

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-22 (Cancelled).

1 23. (Currently amended) An electrical drive system for the synchronized adjustment of
2 the position, speed or acceleration of a plurality of movable, functional parts of devices
3 and machines, the system comprising:

4 (a) a plurality of drive units each connected to one or more of the functional parts
5 for said adjustment under computer assisted control;

6 (b) a plurality of drive networks, each drive network having a plurality of the
7 drive units as network nodes, each drive network allocated to a group of the
8 functional parts, the nodes of at least one of the drive networks connected together
9 for communication between the nodes;

10 (c) a plurality of intercommunication networks for synchronizing the drive units
11 of different drive networks, each intercommunication network connecting a node
12 of a drive network with a node of another drive network;

13 (d) a multi-link controller having a plurality of communication components, each
14 communication component being a node of one of the intercommunication
15 networks for coupling the nodes of the intercommunication network; and

16 ~~A drive system according to Claim 31 and further comprising (e)~~ a drive synchronisation
17 control unit as nodes of an intercommunication network for an electrical drive system
18 having at least one communication interface and at least one processor that controls it and
19 is provided with the following functional modules:

- 20 (a)(i) a master axis module, designed to receive, to generate and/or route
21 data and/or commands for a virtual master axis via the at least one
22 communication interface and
23 (b)(ii) a data distribution module, which is designed for controlling a data
24 and/or command flow via the at least one communication interface with
25 one of the networks, in particular the intercommunication network.

1 24. (previously presented) A drive system according to Claim 23 wherein the
2 synchronisation control unit has the processor also provided with a second
3 communication interface and a drive communication module that can be coupled with it
4 and is designed for controlling a data and/or command flow via the second
5 communication interface with one of the drive networks.

1 25. (previously presented) A drive system according to Claim 24 wherein the
2 synchronisation control unit has a master axis module designed for access to the two
3 communication interfaces for the purpose of bidirectional data and/or command
4 interchange between two networks.

1 26. (previously presented) A drive system according to Claim 25 wherein the
2 synchronisation control unit has a processor provided with a third communication
3 interface, with which the drive communication module and/or data distribution module
4 for organising a command and/or data flow between one of the drive and/or
5 intercommunication networks, on the one hand, and a further control network with
6 asynchronous data interchange, on the other hand, can be coupled.

1 27. (previously presented) A drive system according to Claim 26 wherein the
2 synchronisation control unit has a drive communication module designed for access to
3 the second and third communication interfaces for the purpose of bidirectional data
4 and/or command interchange between two networks.

1 28. (previously presented) A drive system according to Claim 26 wherein the
2 synchronisation control unit has a data distribution module designed for access to at least
3 two of the first, second and third communication interfaces for the purpose of
4 bidirectional data and/or command interchange between at least two of the different
5 networks.

1 29. (previously presented) A drive system according to Claim 28 wherein the
2 synchronisation control unit has a processor provided with one or more modules that
3 regulate and/or control the first, second and third communication interfaces, for
4 communication management via these communication interfaces.

1 30. (previously presented) A drive system according to Claim 29 wherein the
2 synchronisation control unit has a data distribution module which comprises filtering or
3 other processing functions for data and commands from at least one communication
4 interface for at least one other communication interface.

1 31. (Cancelled)